IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Kyle Baldwin et al.

Docket No.: 2156-608A

Serial No.: 10/820,236

Examiner: C. Sullivan

Filing Date: April 6, 2004

Art Unit: 1795

Title: Method of Forming a Metal Pattern on a Substrate

Mail Stop Appeal Brief Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. SECTION 41.37

Applicant is filing a Notice of Appeal from the last decision of the Examiner on December 17, 2007 concurrently herewith. Applicant submits herein an Appeal Brief for the above captioned application pursuant to 37 C.F.R. Section 41.37.

Please charge Deposit Account No. 50-0447 in the amount of $510, plus any deficiencies.

1. Real Party in Interest:

The owner of record of the application under appeal and the real party in interest is MacDermid, Inc., a corporation of Connecticut, as a result of an assignment dated June 25, 2004, which has been recorded at the U.S.P.T.O. at Reel 014778, Frame 0779.

Serial No.: 10/820,236
Filing Date: April 6, 2004

Examiner: C. Sullivan
Art Unit: 1795

2. **Related Appeals and Interferences:**

There are no related appeals, interferences, or judicial proceedings known to Appellant, Appellants' legal representative or Assignee.

3. **Status of Claims:**

Claims 1:	Pending
Claim 2:	Canceled
Claims 3-20:	Pending

Thus, claims 1 and 3-20 are currently pending and are subject of the instant appeal. All of the pending claims 1 and 3-20 have been and are finally rejected. A copy of pending claims 1 and 3-20 are provided in the Claim Appendix.

4. **Status of Amendments:**

All claim amendments have been entered. The claims were last amended on November 1, 2007 and the amendments were entered.

5. **Summary of the Claimed Subject Matter:**

The invention is directed generally to a method of producing a metal pattern in a desired pattern on a substrate. Two different photoimageable film layers are provided on the substrate, such that after exposure to actinic radiation to produce a negative of the desired image and subsequent development, a resulting "umbrella" is formed of the top photoimageable layer over the bottom photoimageable layer. The "umbrella" allows for the clean removal of the photoimageable film layers, without damage to the subsequently applied metal.

More specifically the invention is directed to pending independent claim 1:

A method of producing a metal pattern on a substrate comprising the steps of:

a) providing a first photoimageable dry-film layer on the substrate;

b) laminating a second photoimageable dry-film layer directly over the first photoimageable dry-film layer, wherein said second photoimageable dry-film layer is formulated to have a slower development time than the first photoimageable dry-film layer and/or a faster curing speed than the first photoimageable layer;

c) placing a negative image of the desired metal pattern over the second photoimageable dry-film layer and exposing the first photoimageable dry-film layer and the second photoimageable dry-film layer to actinic radiation;

d) developing off uncured areas of the first photoimageable dry-film layer and the second photoimageable dry-film layer with a developer capable of developing off uncured areas of both the first photoimageable dry-film layer and the second photoimageable dry film layer to produce an image on the substrate;

e) depositing metal onto the substrate, wherein the metal is deposited over both the patterned areas and unpatterned areas of the substrate; and

f) stripping the first photoimageable dry-film layer and the second photoimageable dry-film layer from the substrate to leave the metal pattern on the substrate.

(See generally specification at page 3, lines 16-33).

Support for dependent claims 3-20 can be found as follows:

Claim 3 **(see page 5, lines 24-27)**
Claim 4 **(see page 5, lines 27-30)**
Claim 5 **(see page 6, lines 1-6)**
Claim 6 **(see page 6, lines 18-22)**
Claim 7 **(see page 6, line 33 through page 7, line 2)**
Claim 8 **(see page 7, lines 2-20)**
Claim 9 **(see page 7, lines 25-26)**
Claim 10 **(see page 6, lines 4-6)**

Serial No.: 10/820,236
Filing Date: April 6, 2004

Examiner: C. Sullivan
Art Unit: 1795

Claim 11 **(see page 7, lines 30-32)**

Claim 12 **(see page 7, lines 31-32)**

Claim 13 **(see page 7, line 32 through page 8, line 2)**

Claim 14 **(see page 8, lines 4-9)**

Claim 15 **(see page 8, lines 4-9)**

Claim 16 **(see page 8, lines 30-32)**

Claim 17 **(see page 9, lines 5-6)**

Claim 18 **(see page 9, lines 6-8)**

Claim 19 **(see page 9, lines 8-10)**

Claim 20 **(see page 5, lines 30-32)**

6. Grounds of Rejection To Be Reviewed on Appeal

Whether claims 1 and 3-20 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 4,413,051 to Thomas (hereinafter "Thomas") in view of U.S. Patent No. 6,255,035 to Minter (hereinafter "Minter") further in view of U.S. Patent No. 4,582,778 to Sullivan (hereinafter "Sullivan") and further in view of U.S. Patent No. 4,035,320 to Lawson (hereinafter "Lawson").

7. Argument

a. Rejection of Claims 1 and 3-20 under 35 U.S.C. §103(a) over Thomas in view of Minter further in view of Sullivan and further in view of Lawson.

Claims 1 and 16-19:

Claim 1 is directed to a method of producing a metal pattern on a substrate comprising the steps of:

a) providing a first photoimageable dry-film layer on the substrate;

b) laminating a second photoimageable dry-film layer directly over the first photoimageable dry-film layer, wherein said second photoimageable dry-film layer is

formulated to have a slower development time than the first photoimageable dry-film layer and/or a faster curing speed than the first photoimageable layer;

c) placing a negative image of the desired metal pattern over the second photoimageable dry-film layer and exposing the first photoimageable dry-film layer and the second photoimageable dry-film layer to actinic radiation;

d) developing off uncured areas of the first photoimageable dry-film layer and the second photoimageable dry-film layer with a developer capable of developing off uncured areas of both the first photoimageable dry-film layer and the second photoimageable dry film layer to produce an image on the substrate;

e) depositing metal onto the substrate, wherein the metal is deposited over both the patterned areas and unpatterned areas of the substrate; and

f) stripping the first photoimageable dry-film layer and the second photoimageable dry-film layer from the substrate to leave the metal pattern on the substrate.

The Examiner asserts that Thomas broadly describes all of the features of the claimed invention except that the first film layer develops faster than the second film layer and the particular curing speed and uses Minter, Sullivan and Lawson to cure the deficiencies of Thomas. Appellants respectfully disagree that the combination of Thomas, Minter, Sullivan and Lawson describes or suggests all of the features of the claimed invention.

As described in more detail below, the Examiner has not made a sufficient showing to demonstrate how the cited combination of references describes or suggests all of the features of the claimed invention. Appellants respectfully submit that the only suggestion for the combination asserted by the Examiner comes from Appellants' own disclosure and not from the references themselves.

Firstly, Appellants note that the present invention is directed to a method of producing a metal pattern on a substrate using a **negative** **dry-film** photoresist.

Photoresists can be either negative or positive. In either case, a photomask is placed over the one or more photoresist layers and both the mask and the one or more photoresist layers are exposed to UV radiation to crosslink and cure selected portions of the photoresist layer. Thereafter, the photoresist is developed in a suitable solvent and the desired photoresist pattern that has been crosslinked and cured by exposure to the UV radiation remains, while the portion of the photoresist that is soluble in the solvent is washed away. The result can be either a negative image or a positive image of the desired pattern, depending on the etching process selected.

A negative photoresist is a resist that upon imagewise exposure to UV radiation, crosslinks and hardens in the areas that are not covered by the photomask. Thus, the areas of the photoresist that are protected from exposure to UV radiation by the mask are removed by the solvent, resulting in a **negative** image of the photomask. In contrast, a positive photoresist is a resist that cross-links and polymerizes if it is under the opaque portion of the photomask so it is protected from UV radiation. This makes that portion of the pattern resistant to a solvent after development, while the portions of the photoresist exposed to UV radiation through the transparent portions of the mask are removed by the mask, resulting in a **positive** image of the photomask. One key difference between positive and negative photoresists is that with a positive photoresist, the substrate can be recoated with a photoresist layer and exposed and developed a second time to define additional features.

In addition to being negative or positive acting, the photoresists can also be either **liquid** or **dry-film**. Liquid photoresists are deposited on the substrate and then cured. In contrast, dry-film photoresists are typically laminated to the substrate. Thus, it can be seen that negative acting and positive acting photoresists as well as liquid and dry-film photoresists utilize different resist compositions and different solvents for removal of the undesired portions of the photoresists.

Thomas is directed to a negative acting photoresist (see e.g., Thomas, column 6, lines 9-11) because Thomas states that the resist is developed in a single step which leaves the apertures beneath opaque mask portions. However, Thomas does not describe or suggest that the first and second photoimageable layers have different properties, i.e., faster/slower development times and/or curing speeds so that clean non-ragged edge can be obtained between the substrate and the deposited metal on the substrate after the first and second photoimageable layers are stripped from the substrate. While it is acknowledged that Thomas does disclose that the two layers are developed with a developer capable of developing both layers, this is true only because both layers have the **same composition**. There is no teaching or suggestion that the layers have a different formulation as in the present invention. Thus, while Thomas does describe multiple dry-film layers, it is only for the purpose of increasing the thickness of the resist (see e.g., column 5, lines 20-25) and not for obtaining clean non-ragged edges between the substrate and the deposited metal after the two photoimageable layers are stripped. As discussed by Appellants in their previous response, the difference in development property produces a T-shaped photoresist sandwich that eliminates ragged lines along the interface between the substrate and the photoresist (see page 3, lines 8-13 of the specification). For all of these reasons, Thomas does not describe or suggest layers have different properties and cannot anticipate or render obvious the claimed invention.

Appellants respectfully submit that Minter is not combinable with Thomas because Minter is directed to a **positive** acting photoresist and the teachings in Minter directed to the use of a developer for a first photoresist that does not dissolve a second photoresist in the exposed or unexposed areas and vice versa is not combinable with Thomas because Thomas and Minter are directed to different types of photoresists (positive versus negative acting).

Furthermore, Minter does not cure the deficiencies of Thomas because while Minter does describe two different photoresists, the two photoresist compositions are not developable in the same developer as in the present application. The Examiner has taken

a teaching of two layers containing the same materials (Thomas), which would of course be developable in the same developer, and combined this with a teaching of two different materials that are developed in two different developers (Minter) to conclude that it would be obvious to develop two materials having different properties in a single developer. Appellants respectfully submit that there is no teaching or suggestion in either reference as to this possibility. The only teaching of the use of two photoresists with different properties that are developable in the same developer comes from Appellants' own disclosure. Thus, it is respectfully submitted that the combined teachings of Thomas and Minter do not and cannot render obvious the claimed invention.

Minter (see e.g., column 7, lines 16-22) specifically explains that the first and second photoresist compositions have different solubilities in their respective developers. That is the first photoresist, both before and after exposure should be substantially insoluble in the developer for the second photoresist and the second photoresist, both before and after exposure should be substantially insoluble in the developer for the first photoresist. Thus, it is clear that Minter does not describe or suggest layers that have different properties and that are developable in the same developer as described and claimed by Appellants.

The Examiner then uses Sullivan for its teaching of a pattern forming process using multiple resist layers with such properties. The Examiner asserts that Sullivan discloses a process of producing high resolution images using dual photopolymer film layers and also that Sullivan discloses that the multiple layers have different solubilities or stripping characteristics so the layers can be selectively exposed and then stripped in sequential operations on a substrate to avoid interim cleaning or substrate handling steps and further asserts that this meets the limitation of claim 1 that the dry-film layers have different development times or curing speeds. Appellants respectfully disagree that the teachings of Sullivan can be combined with Thomas and Minter in the manner suggested by the Examiner.

Serial No.: 10/820,236
Filing Date: April 6, 2004

Examiner: C. Sullivan
Art Unit: 1795

Appellants' claim 1 affirmatively recites that the second photoimageable dry-film layer is formulated to have a slower development time than the first photoimageable dry-film layer and/or a faster curing speed than the first photoimageable layer. As discussed in Appellants' disclosure and as indicated above, the process of the invention produces a resulting "umbrella" of the top photoimageable layer over the bottom photoimageable layer. The "umbrella" allows for the clean removal of the photoimageable film layers, without damage to the subsequently applied metal. Sullivan only discloses that the two photoimageable layers (as well as the intermediate opaque layer) can be developed with the same solvent. As with all of the other references cited herein, Sullivan does not describe or suggest that the second photoimageable dry-film layer is formulated to have a slower development time than the first photoimageable dry-film layer and/or a faster curing speed than the first photoimageable layer. Appellants further submit that even if Sullivan discloses that the dry-film layers have different development times or curing speeds, there is still no teaching or suggestion as to which layer has which development time and/or curing speed and thus there is no teaching or suggestion that Sullivan produces an umbrellas of the top photoimageable layer over the bottom photoimageable layer as in the present invention.

In addition, Sullivan is using two different **liquid** photoresist layers, which as discussed above, are very different from the laminated dry film layers of the present invention. Sullivan also uses an opaque resin layer between the two photoresist layers to prevent premature inner layer exposure. Thus, it can be seen that Sullivan is not solving the same problem as the instant invention and the teachings of Sullivan, alone or in combination with Thomas, Minter and/or Lawson does not anticipate or render obvious the claimed invention.

Finally, the Examiner cites Lawson for its teaching that the curing speed of a radiation curable compound is affected by the concentration of acrylate groups present in the molecule and concludes based on this disclosure that it would be obvious to optimize the composition of the dry-film photoresist to obtain the recited development dwell times

and curing speeds. However, Lawson does not in fact disclose that the curing speed of a radiation curable compound is affected by the concentration of acrylate groups present in the molecule. Instead, Lawson only discloses that the proportion of aliphatic polyol has a bearing on the properties of the radiation curable composition.

The passage in Lawson cited by the Examiner is reproduced below:

> The ***exact proportion of polyol*** has a bearing on the physical properties of the radiation curable compositions of the invention. The ***greater the proportion of aliphatic polyol*** employed in preparing the polyester polyol, the greater will be the concentration of acrylate groups and the greater the amount of polyol acrylate from unreacted polyol in the final polyacrylate composition prepared according to the method of the invention. In turn, ***as the concentration of polyol acrylate increases, the viscosity and cure speed of the compositions of the invention decrease.*** Conversely, the polyacrylate composition with the highest viscosity (lowest polyol acrylate concentration) cures almost three times faster than the polyacrylate of lowest viscosity (emphasis added).

Thus, Lawson **does not** in fact disclose that the curing speed of the radiation curable compound is affected by the concentration of the acrylate, as asserted by the Examiner,, but rather that the proportion of the **aliphatic polyol** affects the concentration of acrylate groups. As can be seen from Thomas and Minter, neither of these references describe or suggest an aliphatic polyol in the acrylic resin formulation and thus the teaching in Lawson that the aliphatic polyol affects the curing speed of the resin has no bearing on the photoresist materials described by Thomas and/or Minter.

Thus Lawson does not cure any of the noted deficiencies of Thomas, Minter or Sullivan and the combination of Thomas in view of Minter further in view of Sullivan and further in view of Lawson does not anticipate or render obvious the claimed invention.

For all of these reasons, reconsideration and withdrawal of the rejection of claims 1 and 17-19 as being unpatentable over Thomas in view of Minter, Sullivan and Lawson is respectfully requested.

Claim 3:

Claim 3 is believed to be allowable over the prior art of record for the reasons provided above. Appellants respectfully submit that none of the cited references, alone or in combination, describe or suggest the particular development dwell times recited in claim 3. As such, none of the cited references anticipate or render obvious claim 3 of the invention and claim 3 is believed to be allowable over the prior art of record.

Claim 4:

Claim 4 is also believed to be allowable over the prior art of record for the reasons provided above. Appellants respectfully submit that none of the cited references, alone or in combination, describe or suggest the particular curing speeds recited in claim 4. As such, none of the cited references anticipate or render obvious claim 4 of the invention and claim 4 is also believed to be allowable over the prior art of record.

Claims 5-15:

Claims 5-15 recite various features of the photo-imageable dry film layers and area believed to be allowable over the prior art of record for the reasons provided above.

Claim 20:

Claim 20 is also believed to be allowable over the prior art of record for the reasons provided above. Appellants respectfully submit that none of the cited references, alone or in combination, describe or suggest the particular breaking points of the first and second photoimageable dry-film layers as recited in claim 20. As such, none of the cited references anticipate or render obvious claim 20 of the invention and claim 20 is believed to be allowable over the prior art of record.

For all of these reasons, claims 1 and 3-20 are believed to be allowable over the prior art of record.

CONCLUSION

The Examiner's rejection of claims 1 and 3-20 should be reversed for the following reasons:

1) Thomas in view of Minter, Sullivan and Lawson does not describe or suggest all of the features of the claimed invention because:

a) Thomas, Minter and Sullivan are each directed to different types of photoresists and thus cannot be combined in the manner suggested by the Examiner;

b) Thomas only teaches two layers of the same composition and thus does not describe or suggest layer having different properties that are developable in the same solvent;

c) Minter teaches first and second photoresist compositions that are developable in different solvents and thus does not describe or suggest two layers of photoresist composition that are developable in the same solvent;

d) Sullivan teaches that the dry-film layers have different properties. However, Sullivan does not describe or suggest dry-film layers but only discusses liquid photoresist compositions. In addition, Sullivan does not recognize the desired properties of faster curing speed and/or slower development time of the second photoimageable film as compared to the first photoimageable film recited in the present invention; and

e) Finally, Lawson does not disclose that the curing speed of the radiation curable compound is affected by the concentration of the acrylate as suggested by the

Serial No.: 10/820,236
Filing Date: April 6, 2004

Examiner: C. Sullivan
Art Unit: 1795

Examiner, but rather that the proportion of the aliphatic polyol affects the concentration of acrylate groups. Because none of the other cited references describe or suggest an aliphatic polyol in the acrylic resin formulation, the teachings of Lawson have no bearing on the photoresist materials described by Thomas and/or Minter and/or Sullivan.

2) The cited references are not combinable in the manner suggested by the Examiner and thus the combination of Thomas in view of Minter, Sullivan and Lawson does not anticipate or render obvious all of the features of the claims of the present invention.

For all the foregoing reasons, the references cited by the Examiner are insufficient to render the pending claims anticipated and/or obvious. As a result, it is believed that the rejections proposed by the Examiner are inappropriate, should be overturned, and that this application should pass to allowance. Such action is earnestly sought.

Respectfully submitted,

Jennifer A. Calcagni, Reg. 50,207
Carmody & Torrance LLP
50 Leavenworth Street
P. O. Box 1110
Waterbury, CT 06721-1110
(203) 575-2648

Serial No.: 10/820,236
Filing Date: April 6, 2004

Examiner: C. Sullivan
Art Unit: 1795

CLAIM APPENDIX

1. A method of producing a metal pattern on a substrate comprising the steps of:

a) providing a first photoimageable dry-film layer on the substrate;

b) laminating a second photoimageable dry-film layer directly over the first photoimageable dry-film layer, wherein said second photoimageable dry-film layer is formulated to have a slower development time than the first photoimageable dry-film layer and/or a faster curing speed than the first photoimageable layer;

c) placing a negative image of the desired metal pattern over the second photoimageable dry-film layer and exposing the first photoimageable dry-film layer and the second photoimageable dry-film layer to actinic radiation;

d) developing off uncured areas of the first photoimageable dry-film layer and the second photoimageable dry-film layer with a developer capable of developing off uncured areas of both the first photoimageable dry-film layer and the second photoimageable dry film layer to produce an image on the substrate;

e) depositing metal onto the substrate, wherein the metal is deposited over both the patterned areas and unpatterned areas of the substrate; and

f) stripping the first photoimageable dry-film layer and the second photoimageable dry-film layer from the substrate to leave the metal pattern on the substrate.

3. The method according to claim 1, wherein the development dwell time of the first photoimageable dry-film layer is between about 40 and about 60 seconds and the development dwell time of the second photoimageable dry-film layer is between about 80 and about 120 seconds.

4. The method according to claim 1, wherein the curing speed of the first photoimageable dry-film layer is between about 30 and about 100 mJ and the curing speed of the second photoimageable dry-film layer is between about 5 and about 20 mJ.

5. A method according to claim 1, wherein the first photoimageable dry-film layer and the second photoimageable dry-film layer are each formulated from a composition comprising one or more binders, one or more monomers, a photoinitiator, and a suitable solvent.

6. A method according to claim 5, wherein the one or more binders are selected from the group consisting of (meth)acrylic acid, itaconic acid, ethyl(meth)acrylate, n-butyl (meth)acrylate, propyl (meth)acrylate, methyl (meth)acrylate, octyl acrylate, n-hexyl acrylate, t-butyl acrylate, secbutyl acrylate, isobutyl acrylate, 2-ethyl hexyl acrylate, styrene, isobutyl methacrylate, substituted styrenes, and vinyl esters.

7. A method according to claim 5, wherein the one or more monomers are selected from the group consisting of acrylic and methacrylic acid and acid esters, vinyl ethers, polyester acrylates, and polyurethane acrylates.

8. A method according to claim 7, wherein the one or more monomers are selected from the group consisting of allyl (meth)acrylate, tetrahydrofurfuryl (meth)acrylate, isodecyl (meth)acrylate, 2(2-ethoxyethoxy) ethyl (meth)acrylate, stearyl (meth)acrylate, lauryl (meth)acrylate, 2-phenoxyethyl (meth)acrylate, glycidyl (meth)acrylate, isobornyl (meth)acrylate, tridecyl (meth)acrylate, isooctyl (meth)acrylate, caprolactone (meth)acrylate, polyethylene glycol (meth)acrylate, propylene glycol (meth)acrylate, ethylene glycol (meth)acrylate, 1,3-butylene glycol di(meth)acrylate, 1,6-hexanediol di(meth)acrylate, neopentyl glycol di(meth)acrylate, polyethylene glycol di(meth)acrylate, polypropylene glycol di(meth)acrylate, ethoxylated A di(meth)acrylate, propoxylated bisphenol A di(meth)acrylate, alkoxylated cyclohexane dimethanol di(meth)acrylate, cyclohexane dimethanol di(meth)acrylate, trimethylolpropane tri(meth)acrylate, ethoxylated trimethylolpropane tri(meth)acrylate, propoxylated trimethylolpropane tri(meth)acrylate, tris (2-hydroxy ethyl) isocyanurate tri(meth)acrylate, pentaerythritol tri(meth)acrylate, ethoxylated glycerol tri(meth)acrylate, propoxylated glycerol tri(meth)acrylate, pentaerythritol tetra(meth)acrylate, ethoxylated

pentaerythritol tetra(meth)acrylate, propoxylated pentaerythritol tetra(meth)acrylate, dipentaerythritol penta(meth)acrylate, dipentaerythritol hexa(meth)acrylate, polyester (meth)acrylates, polyurethane (meth)acrylates, and combinations of the foregoing.

9. A method according to claim 5, wherein the photoinitiator is selected from the group consisting of benzoin ethers, benzil ketals, acetophenones, benzophenones, and combinations of the foregoing.

10. A method according to claim 5, wherein the composition that makes up the first photoimageable dry-film layer or the second photoimageable dry-film layer further comprises one or more additives selected from the group consisting of adhesion promoters, stabilizers, flow additives, surfactants, and other additives.

11. The method according to claim 5, wherein the composition is coated over a carrier sheet, and the solvent is subsequently removed.

12. The method according to claim 11, wherein the carrier sheet is selected from the group consisting of polyester and polyethylene terephthalate.

13. The method according to claim 11, wherein a removable protective layer is applied to the top of the composition.

14. The method according to claim 13, wherein the first photoimageable dry-film layer is applied to the substrate by lamination using pressure, heat, or heat and pressure, and the protective cover layer is removed.

15. The method according to claim 14, wherein the second photoimageable dry-film layer is applied over the first photoimageable dry-film layer by lamination using pressure, heat, or heat and pressure, and the negative image of the desired metal pattern is applied

over the second photoimageable dry-film layer with the protective cover layer still in place.

16. The method according to claim 1, wherein after development, the second photoimageable dry-film layer overhangs the first photoimageable dry-film layer on the substrate.

17. The method according to claim 1, wherein the metal layer is deposited by sputter coating.

18. The method according to claim 17, wherein the metal is gold.

19. The method according to claim 1, wherein the step of stripping the first photoimageable dry-film layer and the second photoimageable dry-film layer from the substrate comprises using a caustic solution or an amine stripping solution.

20. The method according to claim 1, wherein the first photoimageable dry-film layer has a breaking point of about 30% and the second photoimageable dry-film layer has a breaking point of about 60%.

Serial No.: 10/820,236
Filing Date: April 6, 2004

Examiner: C. Sullivan
Art Unit: 1795

EVIDENCE APPENDIX

None

Serial No.: 10/820,236
Filing Date: April 6, 2004

Examiner: C. Sullivan
Art Unit: 1795

RELATED PROCEEDINGS APPENDIX

None